

T S1/9/ALL FROM 347

1/9/2 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

02319075 \*\*Image available\*\*  
LIGHT QUANTITY CONTROL DEVICE

PUB. NO.: 62-235975 [JP 62235975 A]  
PUBLISHED: October 16, 1987 (19871016)  
INVENTOR(s): KIMIZUKA JUNICHI  
INUYAMA SATOHIKO  
SOYA TAKASHI

APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP  
(Japan)

APPL. NO.: 61-078095 [JP 8678095]

FILED: April 07, 1986 (19860407)

INTL CLASS: [4] G03G-015/04; H01S-003/103

JAPIO CLASS: 29.4 (PRECISION INSTRUMENTS -- Business Machines); 42.2  
(ELECTRONICS -- Solid State Components)

JAPIO KEYWORD: R002 (LASERS); R131 (INFORMATION PROCESSING -- Microcomputers  
& Microprocessors)

JOURNAL: Section F, Section No. 685, Vol. 12, No. 104, Pg. 4, April  
06, 1988 (19880406)

## ABSTRACT

PURPOSE: To reduce an error at the control of the quantity of a laser beam by changing a laser current by one step and then comparing the quantity of detected light with the delay of a fixed time for converging a transient phenomenon.

CONSTITUTION: The quantity of a beam outputted from a laser 1 is detected by a detecting photodiode 8, arithmetically amplified 13 and then A/D converted in a microprocessor MPU14, the digital signal is compared with a reference value selected out of plural reference values stored in a ROM14-2 in accordance with light quantity switching signals S1-S3 and a signal corresponding to the reference value is outputted from the MPU14. The output signal is D/A converted 15 and supplied to a constant current circuit 20 through a current/ voltage converting circuit 18 to control the driving current of the laser 1 through transistors 22, 25, 26, so that quantity of the laser beam is adjusted. If the values of output ports 01-09 of the MPU14 are changed by one bit, the current of the laser 1 is increased like steps, and after the passage of a waiting time for converging the transient variation of driving currents of the converter 15 and amplifiers 19, 21, the quantity of the laser beam is detected.

?